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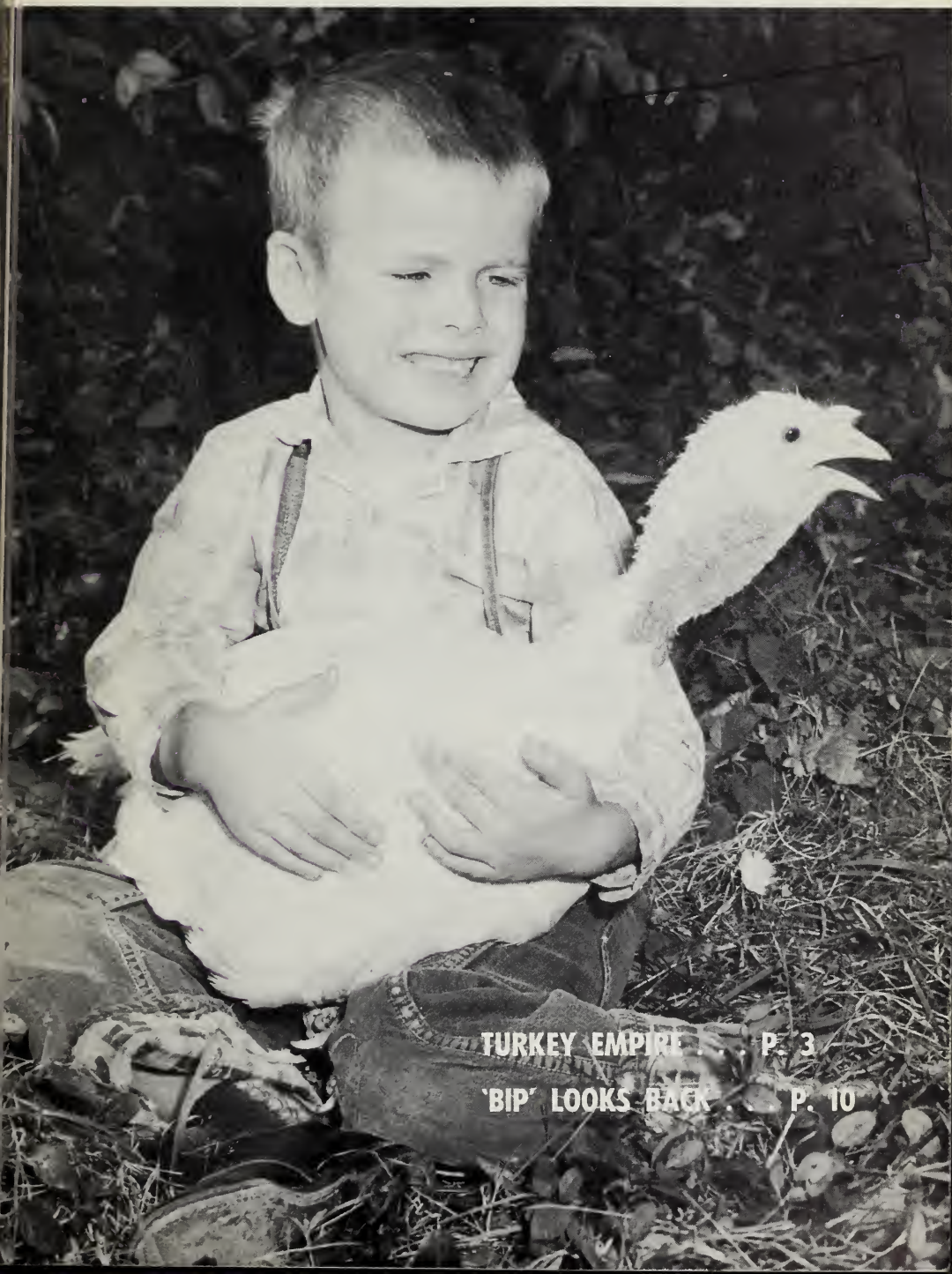


# *D*ural Lines

RURAL ELECTRIFICATION ADMINISTRATION • U. S. DEPARTMENT OF AGRICULTURE

NOVEMBER

1959



TURKEY EMPIRE . . . P. 3

'BIP' LOOKS BACK . . . P. 10



## *A Message from the*

# ADMINISTRATOR

**O**n the 18th of November a great many of us who are interested in rural electrification will meet at the National Electric Farm Power Conference in Phoenix, Arizona.

The conference is the sixth which has been sponsored by the Inter-Industry Farm Electric Utilization Council. Representatives of our borrowers who have attended conferences in past years came home with enthusiastic reports. Moreover, they came home with new ideas for selling more power.

These conferences are a common meeting ground for all people interested in the use of power in rural areas. You get a chance to trade experiences with appliance and equipment manufacturers and distributors, electric company people, extension service specialists who are doing research on rural power use, and trade magazine editors, as well as with other co-op people. Managers and directors value these conferences because they provide about the only forum for all the different points of view on how to sell and serve the rural market.

Top people from each segment of the industry lead the conference workshops. These discussions help to bring about greater coordination between national advertising campaigns and local power sales programs.

Your own individual participation in the sessions at Phoenix makes it possible for other leaders in the industry to have the benefit of your co-op's experience in serving consumers' needs. This kind of two-way cooperation is what continues to make these conferences so popular and so worthwhile.

## *Rural Lines*

*Administrator.*

John H. Howard, editor. Contributors to this issue: Donald H. Cooper, Bernard Krug, Louisan Mamer, and Fred McVey.

Cover Picture: This turkey is on its last lap—that of 5-year-old Kenny Richardson. On Thanksgiving Day, Kenny will like this bird better than he does now.



## TURKEY FARMING

### *King Size*



November is the traditional month of bad news for turkeys everywhere. But it is good news for Mr. and Mrs. Charles Berryman who operate a turkey farm and hatchery near Winchester, Kentucky.

With the help of electric power furnished by the Clark Rural Electric Cooperative Corporation, this modern turkey production center hatches and markets 40,000 birds a year. Most of them find their way to the place of honor on Thanksgiving tables throughout the Nation.

The 850-acre Berryman place also produces hogs, cattle, tobacco and corn. But the gobbler reigns supreme as the main source of income.

From March through July, the farm buzzes with action. This is the period when the four electric incubators, with a total capacity of 24,000 eggs, hatch some 18,000 eggs per week. The Berryman payroll begins to grow about this time, too, reaching a maximum of 30 workers during the busy season.

The farm's electric bill is the highest on the co-op's lines for 4 months every year, beginning in September. It reaches its peak in No-

**Surrounded by gobblers is John Charles Heberlin, Berryman's grandson.**

vember; last year it was \$645 for the Thanksgiving month.

Main scene of activity on the farm is a brick and stone structure.

In this building efficiency and electricity combine to make possible a minor miracle of production. The turkeys are funneled into the rear of the building via a long chute-like corral. Once inside, they are killed as humanely as possible, and hung head down on an endless chain conveyor. Baths of electrically-heated water, defeathering by electric pluckers, washing, cleaning, wrapping—one operation follows another systematically until the turkey arrives at the end

of the line, neatly wrapped in cellophane and ready for the freezer.

Three walk-in freezers have a capacity of 100 tons of eggs. As Berryman puts it: "That's quite a big omelet."

"We started in this business about 35 years ago," Berryman recalls. "By 1938, we had gotten to where we could produce 500 turkeys a year. Things sure are different now," he concluded as he waved a hand over his vast turkey empire.

Pass the drumsticks, please.

(For more about power use activities of Clark Rural Electric Cooperative Corp., read "Wildcats vs. Tigers," on page 5.)



The Berryman family pay a social call on their huge turkey flock, gathered around feed bins. Farm turns out 40,000 birds a year.

John Heberlin holds up a future turkey. Incubators on grandfather's farm can hold 24,000 eggs at a time.

Turkey house features every convenience for birds' comfort: plenty of light, proper ventilation, good food.





Two "Tigers," Catherine Christopher, membership clerk, and Odean McKenzie, cashier, gather for victory pow-wow.

## LET THE STAFF DO IT



# WILDCATS VS. TIGERS

**T**here is nothing like a bit of competition to add zest to any power use program. The Clark Rural Electric Cooperative Corporation, at Winchester, Ky., can show you facts and figures to prove that power-building contests among its staff really pay off.

But running a load-building contest is not all that Manager W. R. Hanshaw and Power Use Advisor John Bailey do. They have devised and are carrying out an all-inclusive power use program, including everything from free electrical repairs, promotion of freezers, skillets, blankets, bulbs, farm water systems, and yard lights, on down to loaning electric ranges to home economics departments of local high schools.

In March 1959, the cooperative inaugurated its “Kilowatt Klub Sales Campaign,” a contest designed to give each of its more than 50 employees a chance to win valuable prizes by helping boost the co-op’s load.

Before the contest began, the co-op held dealer meetings in three central cities. Dealers were very enthusiastic and 35 of them signed agreements to enter into the program.

The plan itself is simple. The employees are divided up into two teams, the Wildcats and the Tigers. Each worker personally contacts a co-op member and talks to him about buying a major appliance. He points out the advantages of electricity in heating, cooking, pumping water, refrigeration, and other household chores. Then he gives the member a verification slip to be signed by the dealer when the sale is made.

Co-op employees are eligible to win all kinds of prizes, mostly electrical, and illustrated in a big wholesale catalog. Each prize gets a point value, usually one point per penny wholesale value of the prize. For example, an electric skillet that wholesales at \$9 would cost the employee 900 points. A fishing reel is 1,600 points; a percolator, 1,200; an electric blanket 1,350; and so forth.

He may earn his points by “selling” any of the following: air conditioner, 300 points; drier, 80 points; dishwasher, 50; freezer, 125; range, 150; refrigerator-freezer, 50; water heater, 300; automatic washer, 10; water pump, 25; farm light, 100.



**Mrs. Annette  
Estes, receptionist, tries  
her skill at  
electronic range  
in co-op office.**

An electric heating installation is good for 12,000 points. This bonanza is divided up: 10 percent for the employee who made the first contact, and the balance equally divided among all team members at the time the sale is made.

Any member of the employee's family is eligible to participate as long as the employee turns in the name of the prospect.

During the first 4 months, the following equipment was added to the co-op's lines, strictly resulting from the contest:

Twenty-six ranges, 21 water heaters, 14 pumps, 8 air conditioners, 7 freezers, 4 driers, 3 washers, 3 refrigerators, 15 friendship lanterns, 44 farm lights, and 7 electric heating installations.

To add an extra fillip to the contest, the co-op, at the end of the competition, will treat the winning team to a chicken dinner. The losing team gets bean soup. Incidentally, both Hanshaw and Bailey are members of opposing teams.

Much of the co-op's other power use activities are tied in with the contest.

Each December, the co-op joins with the neighboring Blue Grass Rural Electric Cooperative, a commercial power company, and a number of dealers and plumbers in staging "Farm Water System Day." County extension people help to make the program a big success. More than 400 people attend the movies and exhibits and after each meeting dealers report increased interest in water systems. Many members signed up on the spot for future installation. In addition, co-op personnel used the meetings to become better acquainted with the members—a definite asset in the co-op's continuing program of good member relations.

The co-op has proved to its members, for example, they really can get something for nothing. It has been making free electrical circuit installations for ranges for about 5 years. Early in 1958, it decided to extend that service to all major appliances, including not only ranges, but also water heaters, freezers, driers, washers, pumps and air conditioners. By the end of the year, it had made 416 free installations, almost double the number made the year before. It



Waneta  
Hanshaw,  
15, begins  
preparation  
of meal on  
electric range  
co-op leased  
to high school.



is continuing this service in 1959 with an average cost per installation of \$21.62, and it figures that the added kwh consumption of members with the new appliances would return its investment in about 6 months.

That's not all that the co-op offers free. It provides a service man who spends all his time going from member to member, offering to do small electrical repairs. He repairs or replaces outlets, switches, lamp receptacles, ironer cords, lamp cords, and fills empty sockets with free bulbs. At the same time, he fills in a mimeographed survey form that tells what appliances are being used, and which ones will be purchased. He checks the panel box, fusing, and load balance on circuits and voltages.

In 3 months he visited 452 members' homes, repaired 88 appliances and installed 42,000 watts of free light bulbs. But he also accumulated the following valuable information: members with no running water, 171; not cooking with electricity, 218; no water heater of any type, 256; and no home freezer, 278.

Copies of this information, together

with names and addresses of prospects, are sent to dealers in the area.

The co-op has not neglected the younger generation in its power use program. For nearly 10 years, it has been loaning electrical equipment to home economics departments in schools where members' daughters are taught. The school superintendent signs an agreement stating that the equipment will be used for educational purposes only, and the cooperative takes over from there. It checks the school wiring to make sure it can handle the ranges, and then it asks various manufacturers to submit bids. Major appliances only are available—ranges, refrigerator-freezers, washers, driers, and mobile dishwashers.

Last year, 21 appliances were placed in schools at a total cost to the cooperative of slightly over \$3,000. Each piece of equipment is replaced annually with a new model. The replaced items are offered for sale—first to the parents of students in home economics classes, teachers and school officials; next, to co-op employees and officials; and last, to co-op members.

Bailey has been power use advisor



**Co-op office refrigerator is used for home economics demonstration in co-op meeting room.**

with the cooperative for slightly over 2 years. He has two installers to help him, but the ideas and gimmicks he uses to put over the promotion campaigns are mostly his own brainchildren.

Right after he took over his new job, he started an electric skillet drive. A well-known manufacturer offered to provide its \$23.45 retail skillet to dealers at half-price. The co-op offered to allow each dealer \$2.50 for every skillet sold to a co-op member. The campaign dragged temporarily. Then Bailey hit on the idea of letting the co-op staff do the merchandising itself. Within a few weeks, 928 skillets had been sold. Prizes

**Co-op provides spacious picnic grounds for members, complete with slides and jungle gym for the small fry.**



were awarded to the three top "salesmen." The top man sold 170 skillets, the second man 147. The member made a down payment of \$2 at the time of sale, and paid \$2 a month with his electric bill for 6 months. The staff member who made the sale got \$2 per skillet, and everybody was happy, especially the co-op which added a whopping big load to its power sales.

The power use department has conducted similar campaigns on electric blankets, percolators, friendship lanterns, mixers and other appliances—all with the co-op's staff member doing the original contact work with the member.

"Yes, we spend a lot of time, effort and dollars on power promotion," Bailey admits, "but we feel that every nickel of it comes back to us, either in higher kilowatt consumption, or in happier, better-informed members—usually both."

The office record books hold the answer. As a result of its intensive load-building program, the co-op has increased its load factor to 59.1 percent, one of the highest in Kentucky. Its power cost has dropped from 8.5 mills to 7.9 mills.

Its monthly average kwh consumption per member: 1956, 190 kwh; 1957, 205 kwh; 1958, 224 kwh. Its total kwh sales for the same 3 years: 14.8 million, 16.5 million, and 18.5 million.

Effective power use promotions usually pay their own freight. On this Kentucky cooperative, every successful campaign is dazzling proof of the fact that the average co-op member wants and needs more and more electric power all the time.

"With our livewire staff," Bailey adds modestly, "we've begun to scratch the surface."



# POWER

# use exchange



**FARM USES AT FAIR**—Several displays showing farm uses of electric heating were highlighted along with home heating equipment in the Farm Better Electrically Tent, sponsored by Indiana Statewide Rural Electric Cooperative and Indiana Electric Association at the Indiana State Fair in September. The latest in electric crop drying, brooding with floor cable, water warmers, milk house heating, and water heating showed visitors the newest farm applications of electric heating. Other main exhibits: A milkhouse complete with bulk milk cooler, water heater, electric heating and all other equipment for a Grade A setup; a stanchion milking setup showing milkers and milk handling devices; an "artificial cow" for feeding milk or other concentrated food to calves; a hog feeding display showing the latest in feeders, waterers, and the manure pump; an electric silo unloader operating into a bunk feeder; a three-deck laying house with an egg handling room showing egg grading, washing, and cooling; and a refrigerated storage room.

Co-op power use advisers, managers, and directors helped man the exhibits. Four were on duty each day during the 9-day fair. REMC people also helped with the setting up and judging of the 4-H electric exhibit at the fair.

The Indiana Farm Service exhibit in a tent next door displayed various types of feed handling, automatic feeders and waterers, tying in with the electric display.

**TRANSFORMER CHANGEOUT**—Use of 7½ hp motors on fans to move heated air in a 3-5 day drying operation has made it necessary for some members of South Crawford Rural Electric Cooperative, Denison, Iowa, to have temporary installations of larger transformers. During last year's drying season, the co-op board approved a \$15 transformer change-out fee on these temporary installations. In some rural electric cooperatives the charge is \$25 due to greater distance in driving and time involved, the co-op's newsletter stated in announcing the program.

**GRAIN DRYER**—"Could you use a grain dryer this year?" a headline in the August issue of the *PKM News* asked members of P.K.M. Electric Cooperative, Warren, Minn. A coupon attached to story gave good reasons for crop drying, offered a free bulletin on grain drying. Follow-up on replies is planned.

**CALF JUDGING**—Four calves given at the 1958 annual meeting of Claverack Electric Cooperative, Towanda, Pa., were brought back to this year's meeting and judged on care and management received. Four awards ranged from \$10-\$25. Four more lucky boys and girls won calves at the 1959 annual meeting, to be brought back for judging on how well the calf has been raised and trained. Breeds represented in both years' awards were: Guernsey, Holstein, and Jersey. Project encourages attendance of boys and girls at the annual meetings, improves breeds in the area, and improves management practices.





This is Bip Parkinson. The movie said: A kid is about the best crop there is.



## "Power and The Land"

# 20 YEARS LATER



*"The long day's work begins,  
It's from dawn to dusk, and after.  
That's the way things are, on the  
farm.  
Summer and winter go by.  
It may be dark in the barn,  
But you've got to milk just the same.  
It may be hot or cold,  
But the feed has to go to the cattle.  
A farmer works at a dozen trades  
during the day.  
And so do his wife and his sons and  
his daughter.  
The long day's work has begun."(\*)*

Twenty years ago, REA made a 30 minute movie called "Power and the Land." The REA program was barely out of its swaddling clothes and the movie showed the changes that the coming of electricity was bringing to the average farm. The REA camera crew made an extensive search for a proper locale and finally selected the 175-acre Parkinson farm in the rolling Ohio countryside near St. Clairsville. Bill Parkinson was a member of the Belmont Electric Cooperative, with headquarters in the town. He was born on the farm in 1889, the year his father bought it.

More than a million people have seen "Power and the Land." Its director was world-famous Joris Ivens. The commentary was written by Stephen Vincent Benet and the musical score by Douglas Moore, then professor of music at Columbia University.



The Parkinson family: Mr. and Mrs., Ruth, Jake and Dan. Bip's in front.

Most of the Parkinson family was in the movie: Mr. and Mrs. Parkinson, their sons, Frank and Jake, and their daughter, Ruth. Another son, Dan, was out of town during the filming.



The old cook-stove that Bip's mother (above) had to use 20 years ago, before electrification, was not quite as easy to use as the modern electric range in Bip's house today. Here he is, warming formula for daughter Jane Ann.



The same old pump on the old Parkinson farm, but with grown-up Bip.



The movie had no stars. All of the "extras" were friends and neighbors of the Parkinsons. But the "featured player" was 9-year-old Frank. Everybody called him "Bip" and they still do.

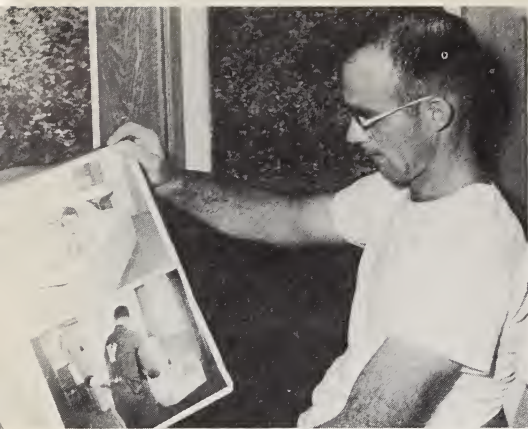
He was a natural actor. Some of his scenes in the movie are unforgettable; Bip racing through the fields, Bip holding a giant sunflower, Bip in the bathtub. In fact, he was so good that the crew later put together a short subject about dairying, using most of the film left out of the main feature. They called it "Bip goes to Town."

"Power and the Land" was premiered in St. Clairsville in August 1940 at the Old Trail Theater, between the co-op headquarters and the postoffice. The occasion was celebrated with brass band splendor, a big parade, radio interviews, and fireworks at night. After that, it was shown in theaters throughout the world, and enjoyed a long run at the Trans-Lux on Broadway.

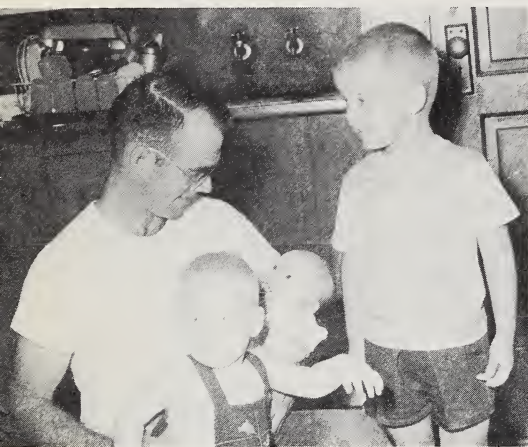
"That movie put us on the map," Manager Harry McAllister reminisces. He scratched his head and a faraway look came into his eyes. "They took over my office, and my

(\*) Narration taken from the original sound track of "Power and the Land."





**"Was that really me?" Bip thumbs through old album of still pictures from "Power and the Land."**



desk. I had to work on an old orange crate. But it was worth it. In April 1941, the co-op moved into its new headquarters building about a mile down Route 40.

Jake is still on the old farm, "batching it." All the rest have gone. The mother died in 1950, the father in 1956.

Bip grew up, graduated from Belmont High, served two years in the Army including 10 months in Korea. He is married and has three children.

Dan, the eldest, is now part-owner of the Ohio Valley Paving Co., and Ruth lives in Glendale, W. Va.

Twenty years later, "Power and the Land" is still occasionally shown. The impact of initial electrification on the farm and in the home is still strong, the narrative still exciting, the photography still beautiful, and the music still stirring. The film is a dramatic reminder of the early days of rural electrification.



**Here's Bip with his new generation of Parkinsons: from left, James 1½, Jane Ann 2½ months, and John 4½.**

*"Bless this food to this family. They have earned it, not by easy tasks, but by their strength and their toil. They are a united family. Now they are tired at the end of the day. But they are friendly with each other and glad to see each others' faces. They may not say very much but they have the word 'home' in their hearts. The things we cherish most in America are here at this table. While we foster and maintain them, it shall be well with all of us."(\*)*





# Wanted: Higher Heating Standards

By

Fred McVey, Assistant Chief

Electric Operations and Loans Division, REA

**T**he early bird catches the worm." This old adage is as valid now as in the day of McGuffey's Readers. Sometimes, though, the fellow out for a quick profit may get you in trouble—a few such are showing up in the electric heating field. If the electric heating industry is to avoid serious trouble, it must adopt a high standard selling program. Otherwise, it may find itself with dissatisfied, or even antagonistic, consumers.

In this relatively new industry, some consumers have found themselves with inferior products and shoddy workmanship. The main fault for this lies not with the consumer and his lack of knowledge concerning electric heating, but with the misinformation he may receive. Electric power suppliers can counteract this situation by developing sound promotion programs to present the facts about electric heating.

There are approximately 100 different manufacturers of electric heating equipment, many of them newcomers to the heating field. Few of these makers control the installation of their product. In most cases, the heating equipment reaches the installers through a distributor or factory representative who may handle several different lines.

The electric heating contractor often does not supervise the wiring end of the heaters and their controls. Instead this important function is sub-contracted; trouble may be caused by men not responsible to the consumer.

Thermostats sometimes are located wherever it is most convenient for the installer with no regard to cold walls, heater location, drafts, or solar gains that might interfere with proper functioning. Improperly placed heaters, long runs, and overloaded circuits all contribute to consumer dissatisfaction.

The consumer looks to the electric power supplier for guidance with his electric heating problems. This is as it should be. Not only will the electric power supplier profit from better public relations, but the operating characteristics of his system will be improved.

Where a power supplier does not exercise guidance and control, the keen competition among different electric heating contractors may result in short-cuts, under-insulation, over-design and other discrepancies that contribute to unsatisfactory operation. The consumer may find himself with an electric heating installation that is too expensive for him to operate and live with. The power suppliers have on their lines a load that adds to the system peak and does nothing to improve the average monthly or yearly load factor.

The electric power suppliers, working with the electric heating equipment and insulation manufacturers, the electrical contractors, and the insulation installers, must provide the overall guidance to the electric heating program if all concerned are to benefit.

Effective insulation is the No. 1 prerequisite to satisfactory electric heating operation; the electric heating contractor must install or closely supervise the installation of the building insulation. Quality of workmanship and the quantity and quality of the insulation used make a big difference in the operating costs and consumer comfort.

If the heat loss of a home is reduced by the use of effective insulation to the desirable level for electric heating, then the electric heating load may actually become off-peak. The heat gain from the normal everyday uses of electricity will usually equal or exceed the maximum heat requirements of the home. This is especially true when the home is located below the 4,000 degree day line.

A 5-point program of the electric power supplier can guide the electric heating industry to successful and profitable operation.

1. Plan to avoid the costly and needless mistakes of careless operators;
2. Realize that the consumer is the final judge of electric home heating. Establish and carry out a firm policy that will assure every user of electric heating a full

measure of high quality, economical, dependable performance;

3. Coordinate all phases of company personnel and facilities behind a firm and properly timed promotional program. Being a relative newcomer to the home heating field, electric heating must be intelligently presented to overcome the potential resistance of consumers who may be either misinformed or uninformed. Sound selling and proper installation are the foundation on which the electric heating industry must be based;
4. Remember that maximum consumer satisfaction and the most efficient application of electricity for home heating can be attained when the operating cost level expressed as a heat factor is not more than .25 (preferably under .20) kwh per degree day per 1,000 cubic feet;
5. Create a sound and competent dealer organization that will take full responsibility for the installation and operation of the electric heating equipment. Building a competent dealer organization requires both time and money. There are no short-cuts to replace experience and proof of performance.

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**VENTILATION** — Preparation for 1959 activities on promotion of ventilation on Iowa farms started with four district training meetings held a year ago under sponsorship of the Power Use Department of Iowa Rural Electric Cooperative Association. Dale Hull and Fred Roth of the Agricultural Engineering Department, Iowa State College, Ames, assisted with the training program which also covered electric floor heat

for farrowing. Power use advisers who attended meetings and managers have used publicity follow-up in newsletters and installations on farms to promote the program. South Central Membership Association, Nelson, Nebr., publicized value of ventilation in building maintenance in its newsletter and offered "Your power use adviser will be happy to come out and recommend a ventilation system to fit your needs."

# SAFETY



## ARTISTS CAN OUST ACCIDENTS



Carmen Cummings has an incentive for safety promotion.

The artist's pen is mightier than Old Man Accident. Many a painful, crippling, lost-time injury has been prevented because interest in safety has been aroused by posters and cartoons. The most effective of these have been those drawn by local artists. They attract interest on the part of workmen who might be exposed to injury hazards because they know the artist, or because they know someone who does. Once his interest is focused on the poster, he can't fail to get the message.

Carmen Cummings of Belzoni, Mississippi, is a 36-year-old meter reader for the Twin County Electric Power Association of Hollandale. Mr. Cummings is an artist who draws largely for his and his friends' pleasure. He is interested in safety; therefore, many of his cartoons are on the subject.

"This is the kind of thing that cops all over the county could use," says Henry M. Alford, field engineer who forwarded a Cummings cartoon to Rural Lines. "You can't beat a cartoon contest on a local level for promoting safety interest. And you can't beat humor for putting across an idea."





Carter's 2-ton feed mill was installed first, then building constructed around it.

## LITTLE WORLD OF ITS OWN



Some of the rural industries served by the Clark County Rural Electric Membership Corporation at Sellersburg, Ind., seem to make a complete little business world of their own.

Among the 112 commercial loads served by this livewire cooperative are a feed mill, poultry farm, and a small woodworking plant that turns out kitchen cabinets at the rate of 25 complete kitchens a week.

"In other words," says genial manager Harry C. Edwards, "these three small commercials mix the feed to grow the chickens to be served in the kitchens. All three operations are powered with co-op electricity."

The J. R. Carter Feed Mill, at Henryville, grinds hay and blends molasses for dairy feed, mixing up to 8 tons per hour. The 2-ton feed mill is one of the first all-bulk mills in the area and is designed so that one man can put out about 60 tons of feed a

day. It handles poultry, dairy and hog concentrates, in bulk.

The total connected load at the Carter mill is 130 horsepower. This includes a 75 hp hammermill and 25 hp corn sheller.

Also on the co-op lines is the Circle L Egg Ranch, owned and operated by Mr. and Mrs. Frank Lane. With 6,400 pullets and 2,400 caged layers, the Lanes market about 10,000 eggs per week. This is more remarkable when you consider that Lane does not spend full time on the ranch. He is a professional X-ray technician at a nearby hospital. His wife, 3 children, and a hired man do all the work.

"Do we use electricity?" asks Mrs. Lane. "We certainly couldn't do what we're doing without it. We think our average \$100 power bill is the best monthly investment we make."

The poultry ranch boasts all kinds of electrical help: water heater, heat tapes on the pipes and in the water, water pump, radio in the hen-houses, egg grader, egg cooler, and egg sander. The Lanes find that cleaning an egg by

sanding is better than washing because less bacteria can get into the shell.

The lighting in the hen-houses is automatically controlled. It dims for 15 minutes before it goes out altogether—to allow the hens time to settle down for the night.

"This cabinet factory is quite a plant," Edwards says with enthusiasm, as he points out the Haas Cabinet Company, in Sellersburg. Every working day it produces about 25 complete kitchens, including cabinets of all sizes, drawers, "lazy susans," meat cutting boards—all of highly polished birch.

A short trip through the factory will reveal electrical woodworking machines of every description. You will find a jointer, edger, drum sander (with three 15-hp motors), dovetailer, sander, and several different kinds of electric drills and saws. Electric power to run all this equipment comes to about \$150 per month, one of the co-op's biggest commercial

accounts. The payroll averages about 30 people.

At the front of the plant is a model kitchen, complete in every respect, containing built-in samples of all of the factory's products—in actual working condition.

Along with its rural industry program, the Clark County co-op is also stressing an electric heating promotion. It already has more than 40 heating loads. A large percentage of new homes are installing electric heating, and many older homes are converting.

"We have 700 miles of line and nearly 4,300 consumers," Edwards points out. "We don't regard those consumers as merely names on a list. We know that all of them are human beings and all of them have problems. We consider it part of our job to help them, in any way we can.

"All these businesses help each other's businesses; we help them and they help us. We're a little business world of our own."

**Frank Jackman, Jr., operates electric sander to make sure corner cabinets come out straight and smooth.**



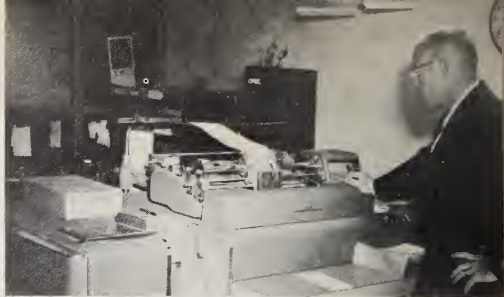
**This dovetail machine, run by William Huber, provides cabinet drawers square and true to fraction of inch.**





They mechanized  
their billing . . .

## AND THEY AREN'T SORRY



Albert E. Skinnell, revenue accountant at Skagit Valley, inspects tabulator.

**W**ant some pointers on mechanized billing equipment? Two neighboring telephone systems in Washington State have been using tabulating machines long enough to form opinions based on experience.

The Skagit Valley Telephone Co., at Mt. Vernon, Wash., was one of the first REA borrowers to abandon manual methods and use machines. G. J. Stover, president and manager, says, "We have never been sorry. It was the practical answer to our particular situation."

Hugging the Canadian border at Lynden, Wash., the Farmers Mutual Telephone Co. has been using tabulating equipment for 3 years. Manager Milton O. Larson declares, "It gives us perfect control before and after billing—not a single error."

Enthusiastic endorsements, however, are not a suitable platform from which to launch a project so potentially expensive as office automation. Any manager intrigued by the potentials of punch card controls for system records and accounting should make sure he has the correct answers to some important questions.

The top question on the list turns out to be the most difficult to answer: How does a manager determine the break-even point for switching from manual methods to machines?

Manager Larson reports that Farmers Mutual obtained equipment 3

years ago and now uses to capacity a tabulator and sorter which were purchased and two key punches which are rented. The company has 8,300 subscribers and handles about 42,000 toll tickets per month.

Basic data is card punched to handle all billing and accounting records. Mrs. Ruby Chestnut, who supervises these operations, finds that station records, truck and car mileage and expense, tax compilation, and a variety of other tabulations are more easily and more accurately handled by machine than by hand.

Mrs. Gertrude Bergraff, who is secretary for the mutual company and also office manager, points out that their equipment was essential to the efficient handling of automatic toll ticketing which is now being installed. "This will give all our subscribers access to nationwide direct distant dialing," she explains. "Subscribers will dial the numbers they want on their own telephones. Station identification, time, and toll charge will be automatically recorded on magnetic tape. We can feed the tape into the punch machine and eliminate the errors that would be bound to occur in manual punching and computing."

On the question of just how to determine the change-over point for maximum savings, Manager Larson admits he cannot be sure. "Some say don't put in tabulation until you





Machine room at Farmers Mutual at Lynden.



Mrs. Ruby Chestnut, machine room supervisor at Farmers Mutual.

reach 10,000 stations, but we made the switch at 7,000 and have never regretted it," he states. He has computed no cost data on machines vs. manual methods, but says that the transition permitted release of two billing clerks and showed a net overall savings.

The Skagit Valley Telephone Co. is similar in size and volume of toll calls, but Manager Stover says he turned to machines when there were 5,000 subscribers. That was close to 10 years ago. Now the system has 8,000 stations and a volume of toll ticketing that runs above 60,000 per month.

In addition to the tabulator, the Skagit Valley company owns two key punches, a reproducer and summary punch, and two sorters. Revenue Accountant Albert E. Skinnell, who supervises the machine room, reports that the equipment is used for subscriber billing, payroll, station records, truck records, inventory, connecting company records, and income tax data.

Manager Stover points to a stop-gap solution for companies that find themselves unable to make full use of billing and tabulating equipment. The Skagit Valley company handled several billing accounts for local firms to take up the slack for a period of several years.

Full use of equipment is one point to watch in switching to machines, be-

cause the costs are high and part-time operation would be uneconomical. Where large volume and high speeds are not essential, new so-called "slow" speed equipment is now on the market at much lower costs.

Next to costs, the most important consideration in converting to machine tabulation and recording is competent training for the persons operating the equipment. Training schools are available for this and offer a standard course of instruction.

Governing factors in comparing advantages of manual and machine operations are: (1) volume of toll business, (2) number of subscribers, and (3) uses to which the equipment will be assigned other than billing and collection records. Some of these uses include material and supply accounting, payroll, general journal and ledger postings, and plant accounting and continuing property and tax records.

*REA has collected preliminary data on the new "slow" speed machines as well as the more familiar high speed equipment, and is in a position to talk with borrowers on an individual basis about what machine tabulation offers. The operating experience of additional borrowers would be helpful. Reports and comments should be sent to REA's Telephone Engineering and Operations Division. As soon as sufficient data has been collected and analyzed on machine costs and performance, the findings will be given to all telephone borrowers.*

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